



SOLUTION BRIEF

Edge computing & Verticals

Connectivity for Maritime

A Move to Digital Services

International providers of mobile and fixed satellite telecommunications services deliver to customers operating in remote environments. They provide multi-band communications to end customers in various verticals including maritime companies.

While there is clearly a demand for reliable and performant communications services across the full range of the maritime industry, the reliance on satellite technology in remote and hostile environments brings with it significant operational challenges particularly in terms of down and up-link speeds as well as guaranteed availability.

Although satellite communications have advanced significantly in recent years, many service providers still rely on traditional CPE router technology for on board Internet access, which has limited the ability to add new and improved revenue generating services as they become available, particularly when vessels are at sea or in inaccessible areas.

Opening the door to Virtualization with Ekinops

With the growing adoption of Network Functions Virtualization (NFV) technology by many of their terrestrial counterparts, maritime communications supplier can understand the opportunity that NFV represents to reduce the complexity of on-board managed appliances and improve customer services. The ultimate goal being to be able to offer more flexible services that can be activated or deactivated on demand. This is possible with a universal CPE with on-boarded network functions; such as the OneAccess branded OVP (Open Virtualization Platform).



A virtualized box can provide a range of new services including:

- Management of the satellite connectivity with multiple link selection and QoS control
- Ensure service resiliency with failover between the Inmarsat and VSAT networks
- Crew welfare services: Internet Access, email server, applications for telemedicine, local storage for newspapers and weather reports
- On-board IT security services such as Firewall, Access Control Lists and encryption
- User-Management: communications cost control

The Ekinops Virtualization Offer

Ekinops, committed to delivering solution based on an open architecture, has been at the forefront of the NFV revolution and has gained a worldwide reputation for its advanced network virtualization technology.



Enable a turn-key End-to-End NFV Solution

In addition to the OVP platform, under the OneAccess umbrella brand, Ekinops has developed an integrated suite of tools needed to streamline the whole process of deploying a service based on a virtualized solution.



OVP Design Studio DESIGN STUDIO

OVP offers a visual front-end for the configuration of virtual network functions. The Web GUI is designed using intuitive drag-and-drop processes to create physical interfaces and service chaining schematic diagrams. Our Customer, in this use case, works with OVP Design Studio to generate Network Service Descriptors (NSD) that define the service structure based on the GUI-defined service. The architecture of OVP Design Studio is open and therefore the tool can also be used to construct NSDs based on third-party VNFs.

Integration into the Customer's Back Office

With OneAccess' virtualization solutions, customers have the ability to integrate with an existing service environment. The customer's management platform will register information relative to their virtualized box including vessel name, hardware and software details. A web GUI dashboard provides a status overview of all active CPEs.

Simple Deployment and Set-up Procedure

1. The OVP is delivered to the vessel with the customer configuration installed
2. OVP is registered with the back office system
3. The NSDs that have previously defined in Design Studio are distributed from the back office via OneManage
4. The OVP will periodically connect with the BO central management tools for service up-dates such as the installation of a new virtual network function.

Why select the OneAccess brand

Key to our customers is our ability to provide an easy to manage turnkey solution for virtualization, that enables service provisioning and management even when the site is located in a remote location. The ability to upgrade vessels with new services even when they are at sea is a particularly decisive factor, as this gives our customers a distinct competitor advantage.

About Ekinops

Ekinops is a leading provider of open and fully interoperable Layer 1, 2 and 3 solutions to service providers around the world. Our programmable and highly scalable solutions enable the fast, flexible and cost effective deployment of new services for both high-speed, high-capacity optical transport networks and virtualization-enabled managed enterprise services. Our product portfolio consists of three highly complementary product and service sets: Ekinops360, OneAccess and Compose.

OVP : Open Virtualization Platform

The connectivity solution is based on the Ekinops OneOS6-LIM virtualization infrastructure running on a universal CPE called OVP.

OVP provides the foundation for hosting virtual network functions (VNFs) that enable easy service chaining and unified service management. It can host VNFs proprietary or else enabling communications and IT applications for use onboard such as the OneAccess vRouter (ONEv600) or a third party vUTM from e.g. Fortinet or others. The complete solution is automatically provisioned and managed through an on-shore control center.

OneManage ONEMANAGE

OneManage is a carrier-grade management platform that ensures automatic provisioning of CPEs, both physical and virtual, including OVP.

OneManage is designed to simplify the provisioning, monitoring and updating of CPE for large-scale deployments. The OneManage software is highly scalable, being currently deployed to successfully manage a distributed network with over 40,000 CPEs in the field.

